Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. – 30. (cancelled)

31. (currently amended) ~~The method of claim 30 wherein the polypeptide~~ A method to assess the inhibitory activity of a test substance on a polypeptide that comprises SEQ ID NO:2, the method comprising:

contacting the polypeptide with the test substance; and

detecting the amount of carboxylate transported by the polypeptide in the presence and absence of the test substance, wherein inhibition of transport in the presence as compared to the absence of the test substance indicates that the test substance is a cellular transporter inhibitor.

32. (currently amended) The method of claim [[30]] **31** wherein the polypeptide is expressed in a Xenopus oocyte comprising an Indy mRNA.

33.-52. (cancelled)

53. (currently amended) ~~The method of claim 51, wherein the~~ A method for evaluating interaction of a test molecule with a transporter polypeptide, the method comprising:

providing a transporter polypeptide that comprises SEQ ID NO:2,

contacting the transporter polypeptide with a test molecule; and

evaluating interaction of the test molecule with the transporter polypeptide.

54. (currently amended) The method of claim **[[51]] 53**, wherein evaluating an interaction of the test molecule comprises evaluating ~~the~~ transport activity of the transporter polypeptide.

55. (cancelled)

56. (currently amended) The method of claim **[[51]] 53**, wherein evaluating an interaction of the test molecule comprises evaluating binding to the transporter polypeptide.

57. (cancelled)

58. (currently amended) The method of claim **[[51]] 54**, wherein evaluating an interaction of the test molecule comprises evaluating the transport activity in the presence and absence of the test molecule, and an alteration in the transport activity in the presence as compared to the absence of the test substance indicates that the test substance is a modulator of the transporter polypeptide.

59. (currently amended) The method of claim **[[51]] 53**, wherein providing the transporter polypeptide comprises expressing the transporter polypeptide in a host cell such that the transporter polypeptide is present at the cell surface.

60. (cancelled)

61. (currently amended) The method of claim **[[51]] 53**, wherein the step of evaluating comprises assaying ~~transport activity of the transporter polypeptide is evaluated by assaying for~~ ~~the~~ transport of a carboxylate.

62. (currently amended) The method of claim 61, wherein the ~~transport activity of the transporter polypeptide is evaluated by assaying for the transport of a~~ carboxylate is selected from the group consisting of succinate, alpha-ketoglutarate, fumarate, and citrate.

63. (currently amended) The method of claim 62, wherein the ~~transport activity of the transporter polypeptide is evaluated by assaying for the transport of~~ carboxylate is succinate.

64. (previously entered) The method of claim 59, wherein the host cell is a Xenopus oocyte.

65. (previously entered) The method of claim 59, wherein the host cell is a mammalian cell.

66. (currently amended) The method of claim **[[51]]** **53**, wherein the test molecule is selected from the group consisting of antibodies, peptides, nucleic acid molecules, and small organic molecules.

67. (currently amended) The method of claim **[[51]]** **53**, further comprising contacting the test molecule to a cell and evaluating an aging symptom of the cell.

68. (currently amended) A method of evaluating a library of compounds, the method comprising:

providing a transporter polypeptide that comprises ~~an amino acid sequence at least 85% identical to~~ SEQ ID NO:2;

providing a library of chemical compounds; and

for each member of the library,

contacting the transporter polypeptide with a test molecule, and

evaluating interaction of the test molecule with the transporter polypeptide.

69. (previously entered) The method of claim 68 further comprising selecting one or more members that stimulate the transporter polypeptide.

70. (previously entered) The method of claim 68 further comprising selecting one or more members that inhibit the transporter polypeptide.

71. (previously entered) The method of claim 68 further comprising contacting one or more members of the library to a cell, and evaluating an aging symptom of the cell.

72. (cancelled)

73. (currently amended) ~~The method of claim 72 wherein the transporter-related parameter of the cell is~~ A method for evaluating a cell, the method comprising:

providing a cell that can express a transporter polypeptide that comprises SEQ ID NO:2;

contacting a test molecule to the cell; and

evaluating expression of an mRNA that encodes the transporter polypeptide.

74. (cancelled) The method of claim **[[72]]** **75** wherein the transporter-related parameter of the cell is transporter activity.

75. (currently amended) ~~The method of claim 72 wherein the~~ A method for evaluating a cell, the method comprising:

providing a cell that can express a transporter polypeptide that comprises SEQ ID NO:2

contacting a substrate of the transporter polypeptide to the cell; and

evaluating a transporter-activity of the cell.

76. (new) The method of claim **[[72]]** 75 wherein the contacting is in the presence of a test molecule ~~substrate for the transporter polypeptide~~.

77. (previously entered) The method of claim **[[76]]** 75 wherein the substrate is a carboxylate.

78. (previously entered) The method of claim 77 wherein the substrate is succinate

79. (previously entered) The method of claim **[[76]]** 75 wherein the substrate is labeled.

80. (currently amended) The method of claim **[[72]]** 75 wherein the transporter polypeptide is produced from a heterologous nucleic acid in the cell.

81. (cancelled)

82. (new) ~~The method of claim 81 wherein the polypeptide~~ A method to assess the inhibitory activity of a test substance on a polypeptide that comprises SEQ ID NO:**[[6]]** 3, the method comprising:

contacting the polypeptide with the test substance; and

detecting the amount of carboxylate transported by the polypeptide in the presence and absence of the test substance, wherein inhibition of transport in the presence as compared to the absence of the test substance indicates that the test substance is a cellular transporter inhibitor.

83. (currently amended) A method for evaluating interaction of a test molecule with a transporter polypeptide, the method comprising:

providing a transporter polypeptide that comprises ~~an amino acid sequence at least 25% identical to~~ SEQ ID NO:2,

contacting the transporter polypeptide with a test molecule;

evaluating interaction of the test molecule with the transporter polypeptide;

contacting the test molecule to a cell; and

evaluating an aging symptom of the cell.

84. (currently amended) ~~The method of claim 83 wherein the~~ A method for evaluating interaction of a test molecule with a transporter polypeptide, the method comprising:

providing a transporter polypeptide that comprises a sequence that is selected from the group consisting of SEQ ID NO:3, 4, 5, and 6

contacting the transporter polypeptide with a test molecule;

evaluating interaction of the test molecule with the transporter polypeptide;

contacting the test molecule to a cell; and

evaluating an aging symptom of the cell.

85. (new) The method of claim 84, wherein evaluating an interaction of the test molecule with the transporter polypeptide comprises evaluating transport activity of the transporter polypeptide.

86. (new) The method of claim 85 wherein evaluating an interaction of the test molecule with the transporter polypeptide comprises evaluating transport activity in the presence and absence of the test molecule, and an alteration in the transport activity in the presence as compared to the absence of the test substance indicates that the test substance is a modulator of the transporter polypeptide.

87. (new) The method of claim 85 wherein the transporter polypeptide comprises SEQ ID NO:4.

88. (new) The method of claim 85 wherein the transporter polypeptide comprises SEQ ID NO:5.

89. (new) The method of claim 85 wherein the transporter polypeptide comprises SEQ ID NO:6.

90. (new) The method of claim 85 wherein the method is used to screen a library of chemical compounds.

91. (new) The method of claim 85 wherein the test molecule is an antibody.

92. (new) The method of claim 85 wherein the test molecule is a peptide.

93. (new) The method of claim 85 wherein the test molecule is a small organic molecule having a molecular weight between 50 to 2,500 Daltons.

94. (new) The method of claim 85 wherein the test molecule is a nucleic acid molecule selected from the group consisting of: antisense molecules, ribozyme molecules, double-stranded interfering RNAs, and triple helix molecules.

95. (new) The method of claim 84 wherein evaluating an interaction of the test molecule with the transporter polypeptide comprises evaluating binding to the transporter polypeptide.

96. (new) The method of claim 95 wherein the transporter polypeptide comprises SEQ ID NO:4.

97. (new) The method of claim 95 wherein the transporter polypeptide comprises SEQ ID NO:5.

98. (new) The method of claim 95 wherein the transporter polypeptide comprises SEQ ID NO:6.

99. (new) The method of claim 95 wherein the method is used to screen a library of chemical compounds.

100. (new) The method of claim 95 wherein the test molecule is an antibody.

101. (new) The method of claim 95 wherein the test molecule is a peptide.

102. (new) The method of claim 95 wherein the test molecule is a small organic molecule having a molecular weight between 50 to 2,500 Daltons.

103. (new) The method of claim 84 wherein the transporter polypeptide comprises SEQ ID NO:3.